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EXAMINER	
VAN HANDEL, MICHAEL P	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/865,136	LAKSONO, INDRA	
	Examiner	Art Unit	
	MICHAEL VAN HANDEL	2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to an Amendment filed 11/21/2008. Claims **1-63** are pending. Claims **1**, **16**, **28**, **37**, **52** are amended.

Response to Arguments

1. Applicant's arguments regarding claims **1**, **16**, **28**, **37**, and **52**, filed 11/21/2008, have been fully considered, but they are not persuasive.

Regarding claims **1**, **16**, **28**, **37**, and **52**, the applicant argues that the gateway device of Rakib et al. does not identify a channel of interest, but instead, that Rakib et al. serves to generally route any and all data, whether satellite, cable modem, or terrestrial. The applicant specifically argues that the gateway device of Rakib et al. does not identify a channel of interest from a set of selected channels. The examiner respectfully disagrees.

As noted in the Office Action mailed 8/19/2008, Rakib et al. discloses a home network having a gateway, which converts incoming signals from external networks to digital data in Ethernet packets for transmission to requesting devices on the home network (p. 4, paragraph 37 & Fig. 3). The gateway has one or more protocol conversion processes and a switching control process that controls a packet switch to route packets between one or more subscription service networks and the local area network to which the gateway is coupled (p. 5, paragraph 43 & p. 10, paragraph 88). Rakib et al. discloses that the gateway 14 delivers requested services to all the peripherals in the customer premises seamlessly over a shared LAN, thereby eliminating the

need for separate home networks (p. 12, paragraph 120 & Fig. 4). The gateway functions to tune signals form multiple external sources (Figs. 3, 4A, 4B, 8).

Rakib et al. further discloses that tuners 100, 102, and 104 receive content from a hybrid fiber coax (HFC) source (p. 12, paragraph 119 & Fig. 4A). Tuner 100 is tuned to one of the conventional CATV analog video channels in NTSC, PAL or SECAM format (p. 12, paragraph 119). Tuner 100 receives control data from microprocessor 128 defining which CATV analog video channel has been requested. Users request analog CATV broadcast channels via their IR keyboards 34 or remote controls 80 (Fig. 3). These requests are encapsulated into management and control Ethernet packets addressed to host CPU 128 by network adaptor 30. The host CPU receives them and generates a bus packet on bus 156 addressed to tuner 100 telling it which channel to tune (p. 12, paragraph 122 & Figs. 3, 4A). The content of this channel is then processed and encapsulated into IP packets addressed to the network adapter of the TV where the CATV video channel is to be viewed (p. 13, paragraph 125). When the IP packets reach the network adapter of the TV that requested the CATV channel, they are converted to a video signal that can be displayed by the TV (p. 13, paragraph 127).

Similarly, tuner 102 is tuned to a particular video-on-demand (VOD) channel. The customer orders a particular VOD program using the IR keyboard or remote control. The microprocessor 128 receives the order information via management and control Ethernet packets generated by the requesting network adapter (p. 13, paragraph 131). The host microprocessor 128 tells tuner 102 which channel in the VOD band to tune to via control data transmitted via data, address, and control bus 156. The RF tuner 102 tunes to that channel and rejects all other signals (p. 13, paragraph 133). The content of this channel is then processed and encapsulated

into IP packets addressed to the network adapter of the TV which ordered the VOD program (p. 14, paragraph 139). Tuner 104 acts similarly to tuners 100 and 102, tuning the DOCSIS channel out of the HFC downstream content (p. 20, paragraph 211). Since the gateway of Fig. 4A receives a set of channels (from tuners 100, 102, and 104), where each of the channels is selected and transmitted to a specific network adapter on the basis of a request from that adapter, the examiner maintains that Rakib et al. meets the limitations of "receiving, from a multimedia source, a set of selected channels as encoded channel data," "interpreting the encoded channel data to identify a channel of interest of the set of selected channels based on a specific channel selection request, wherein each channel of the set of selected channels has a data type," and "processing the encoded channel data, which includes data of the channel of interest based on the data type to produce generic data for each channel of the set of selected channels," as currently claimed.

Further regarding claims **1**, **16**, **28**, **37**, and **52**, the applicant argues that Rakib et al. does not disclose combining, by a channel mixer, the generic data of each channel of a set of selected channels into a stream of data. The examiner respectfully disagrees. As noted in the Interview conducted on 12/09/2008, a mixer is that which mixes or combines contents. Rakib et al. discloses transmitting content over the LAN using IP packet switching (p. 13, paragraph 126 & Fig. 4A). The examiner notes that with packet switching, the content transmitted over the LAN is combined timewise. That is, each packet is individually addressed to its receiving device and takes turns on the communication channel in a first-in, first-out basis, so that each packet can be individually routed. This allows the single network of Rakib et al. to seamlessly transmit a plurality of requested content to the plurality of requesting peripherals over a shared LAN (p. 12,

paragraph 120 & Fig. 3). As such, the examiner maintains that Rakib et al. meets the limitation of "combining, by a channel mixer, the generic data of each channel of the set of selected channels into a stream of data," as currently claimed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **1-63** are rejected under 35 U.S.C. 102(e) as being anticipated by Rakib et al.

Referring to claim **1**, Rakib et al. discloses a method for channel mixing in a multimedia system, the method comprises:

- receiving, from a multimedia source, a set of selected channels as encoded channel data and interpreting the encoded channel data to identify a channel of interest of the set of selected channels based on a specific channel selection request, wherein each channel of the set of selected channels has a data type (p. 12, paragraphs 119, 122; p. 13, paragraphs 125, 126, 131; p. 17, paragraph 179; p. 20, paragraph 211; p. 21, paragraphs 221, 227; & p. 22, paragraph 233; & Fig. 4A);
- processing the encoded channel data, which includes data of the channel of interest based on the data type to produce generic data for each channel of the set of selected

channels (p. 12, 13, paragraphs 123, 124; p. 21, paragraphs 218-220, 225-227; p. 22, paragraph 237; & p. 26, paragraphs 272, 274);

- combining, by a channel mixer, the generic data of each channel of the set of selected channels into a stream of data (p. 13, paragraphs 125, 126 & p. 21, paragraphs 221, 228); and
- transmitting the stream of data to a plurality of client devices, wherein the channel of interest is accessible from the stream of data by a client device of the plurality of client devices based upon the specific channel selection request (p. 10, paragraphs 88, 89; p. 13, paragraphs 126, 127; p. 14, paragraphs 139, 140; & p. 18, paragraphs 188-191).

Referring to claims **2-4**, **17**, **18**, **38-40**, **53**, and **54**, Rakib et al. discloses the method/apparatus of claims 1, 16, 37, and 52, further comprises:

- receiving the set of selected channels by receiving packets of the encoded channel data, wherein the encoded channel data includes channel data from a plurality of tuners associated with a multimedia source, and wherein each of the packets includes a header portion and payload portion and interpreting the encoded channel data by interpreting information of the header portion of the packets to identify individual channels of the set of selected channels (the routing process 86 examines the destination addresses in the IP packet headers and encapsulates the channel IP packet data into Ethernet packets for routing to the appropriate LAN network interface card)(p. 13, paragraphs 125-127, 130, 131, 133; & p. 14, paragraphs 138-140; p. 17, paragraphs 167, 168; p. 18, paragraph 184; & p. 21, paragraphs 221, 223).

NOTE: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claims **5** and **41**, Rakib et al. discloses the method/apparatus of claims 2 and 38 respectively, wherein the interpreting the encoded channel data further comprises:

- identifying, based on the information of the header portion, one of the individual channels of the set of selected channels that contains a group of compressed video channels, wherein the channel of interest is within the group of compressed video channels (p. 13, paragraphs 130, 136; p. 14, paragraph 143; p. 16, paragraphs 159, 164-165; & p. 17, paragraph 165, 166); and
- isolating the channel of interest from the group of compressed video channels (subchannels associated with a VOD program are sent to various other peripherals)(p. 17, paragraph 167).

Referring to claims **6**, **19**, **42**, and **55**, Rakib et al. discloses the method/apparatus of claims 1, 16, 37, and 52, respectively, further comprises:

- receiving the set of selected channels by receiving packets of the encoded channel data, wherein the encoded channel data includes channel data from a plurality of sources, and wherein each of the packets includes a header portion and a payload portion (p. 12, paragraphs 119, 122; p. 13, paragraphs 125, 126, 131; p. 17, paragraph 179; p. 20, paragraph 211; p. 21, paragraphs 221, 227; & p. 22, paragraph 233; & Fig. 4A);

- interpreting the encoding channel data by interpreting information of the header portion of the packets to identify the type of data of each channel provided by each of the plurality of sources (p. 13, paragraph 125 & p. 17, paragraphs 166, 167); and
- determining filtering requirements to identify the channel of interest based on the type of data (p. 13, paragraphs 125, 126).

Referring to claims **7**, **20**, **43**, and **56**, Rakib et al. discloses the method/apparatus of claims 6, 19, 42, and 55, respectively, wherein the determining the filtering requirements further comprises at least one of:

- when the type of data is multi-channel compressed video, filtering the multi-channel compressed video of the set of selected channels to produce the channel of interest (p. 17, paragraph 167);
- when the type of data is single channel compressed video, passing the single channel compressed video as the channel of interest (p. 13, paragraphs 125, 126);
- when the type of data is multi-channel digitized video data, filtering the multi-channel digitized video data of the set of selected channels to produce the channel of interest (p. 17, paragraph 167);
- when the type of data is single channel digitized video data, passing the single channel digitized video as the channel of interest (p. 13, paragraph 132);
- when the type of data is multi-channel digital audio, filtering the multi-channel digital audio of the set of selected channels to produce the channel of interest;
- when the type of data is single channel digital audio, passing the single channel digital audio as the channel of interest (p. 13, paragraph 132); and

- when the type of data is network carried data, passing the network carried data as the channel of interest (p. 19, paragraph 200).

NOTE: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claims **8**, **21**, **44**, and **57**, Rakib et al. discloses the method/apparatus of claims 1, 16, 37, and 52, respectively, further comprises:

- interpreting the encoded channel data to identify a series of channels of interest from the set of selected channels based on a corresponding series of channel selection requests (p. 12, paragraph 120);
- processing data of each of the series of channel of interest based on the type of channel of each of the channels of the series of channels of interest to produce a series of generic data (based on selections made by users at multiple peripherals, a variety of channel data from the various tuners is processed and compressed according to channel type and output as first a stream of PCI data, then a stream of IP data, and finally a stream of Ethernet data)(Fig. 4A); and
- converting the series of generic data into the stream of data (Fig. 4A).

Referring to claims **9**, **22**, **45**, and **58**, Rakib et al. discloses the method/apparatus of claims 1, 16, 37, and 52, respectively, wherein the processing the data of the channel of interest further comprises at least one of:

- when the type of data is multi-channel compressed video, converting the data of the channel of interest into generic video data (p. 13, paragraph 130);

- when the type of data is single channel compressed video, converting the video data of the channel of interest into the generic video data (p. 13, paragraph 131);
- when the type of data is multi-channel digitized video data, converting the video data of the channel of interest into the generic video data (p. 13, paragraph 130);
- when the type of data is single channel digitized video data, converting the video data of the channel of interest into the generic video data (p. 13, paragraph 131);
- when the type of data is multi channel digital audio, converting the audio data of the channel of interest into generic audio data;
- when the type of data is single channel digital audio, converting the audio data of the channel of interest into the generic audio data (p. 13, paragraph 132); and
- when the type of data is network carried data, passing the network carried data as the channel of interest (p. 19, paragraph 200).

NOTE: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claims **10**, **23**, **46**, and **59**, Rakib et al. discloses the method/apparatus of claims 9, 22, 45, and 58, respectively, wherein the converting to the generic video data further comprises at least one of:

- converting the video data of the channel of interest into MPEG formatted video data (p. 6, paragraph 51 & p. 12, paragraphs 123, 124);
- converting the video data of the channel of interest into JPEG formatted video data (p. 6, paragraph 51);

- converting the video data of the channel of interest into M-JPEG formatted video data;
- converting the video data of the channel of interest into digital RGB video data; and
- converting the video data of the channel of interest into digital YCbCr video data.

NOTE: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claims **11**, **24**, **47**, and **60**, Rakib et al. discloses the method/apparatus of claims 9, 22, 45, and 58, respectively, wherein the converting to the generic audio data further comprises at least one of:

- converting the audio data of the channel of interest into MPG formatted audio data (p. 18, paragraphs 191, 192);
- converting the audio data of the channel of interest into MP3 formatted audio data; and
- converting the audio data of the channel of interest into PCM digitized audio data.

NOTE: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claims **12** and **48**, Rakib et al. discloses the method/apparatus of claims 1 and 37, respectively, wherein the converting the generic data into a stream of data further comprises:

- determining type of data of the channel of interest (p. 12, paragraph 122); and
- converting the generic data into the stream of data based on the type of data (p. 12, 13, paragraphs 124-127).

Referring to claims **13**, **25**, **49**, and **61**, Rakib et al. discloses the method/apparatus of claims 12, 16, 48, and 52, respectively, wherein the converting the generic data further comprises at least one of:

- when the type of data is multi-channel compressed video, converting the generic video data of the channel of interest into specific video data (p. 6, paragraph 51 & p. 13, paragraph 130);
- when the type of data is single channel compressed video, converting the generic video data of the channel of interest into a specific video data (p. 6, paragraph 51 & p. 13, paragraph 131);
- when the type of data is multi-channel digitized video data, converting the generic video data of the channel of interest into the specific video data (p. 6, paragraph 51 & p. 13, paragraph 130);
- when the type of data is single channel digitized video data, converting the generic video data of the channel of interest into the specific video data (p. 6, paragraph 51 & p. 13, paragraph 131);
- when the type of data is multi-channel digital audio, converting the generic audio data of the channel of interest into specific audio data;
- when the type of data is single channel digital audio, converting the generic audio data of the channel of interest into specific audio data (p. 13, paragraph 132 & p. 18, paragraphs 191, 192); and
- when the type of data is network carried data, passing the network carried data of the channel of interest (p. 19, paragraph 200).

NOTE: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claims **14**, **26**, **50**, and **62**, Rakib et al. discloses the method/apparatus of claims 13, 25, 49, and 61, respectively, wherein the converting the generic video data of the channel of interest into specific video data further comprises performing a motion prediction on the generic video data to produce motion prediction data; performing a discrete cosine transform on the motion prediction data to produce Discrete Cosine Transform (DCT) data; quantizing the DCT data to produce quantized data; zigzag processing the quantized data to produce ZZ data; and Huffman encoding the ZZ data to produce the specific video data (p. 6, paragraph 51).

Referring to claims **15**, **27**, **51**, and **63**, Rakib et al. discloses the method/apparatus of claims 1, 16, 37, and 52, respectively, further comprises:

- determining the channel of interest is compressed among multiple compressed video channels (p. 13, paragraph 130);
- receiving a control signal indicating the type of processing of the data of the channel of interest (p. 13, paragraph 131); and
- when the control signal indicates multiple channel processing (p. 13, paragraph 131):
    - decompressing the multiple compressed video channels to produce multiple channels (p. 16, paragraph 159);
    - processing data of the multiple channels based on the type of channel to produce multiple generic data and converting the multiple generic data into the stream of data (p. 16, 17, paragraphs 164-167).

Referring to claim **16**, Rakib et al. discloses a method for channel mixing in a multimedia system, the method comprises:

- receiving, from a multimedia source, a set of selected channels as encoded channel data, interpreting the encoded channel data to identify a data type of a channel of interest contained within the set of selected channels based on a specific channel selection request, wherein each channel of the set of selected channels has a data type and separating the channel of interest from the set of selected channels based on the type of data (p. 12, paragraphs 119, 122; p. 13, paragraphs 125, 126, 131; p. 17, paragraph 179; p. 20, paragraph 211; p. 21, paragraphs 221, 227; & p. 22, paragraph 233; & Fig. 4A);
- processing the encoded channel data and the data of the channel of interest based on the data type to produce generic data for each channel of the set of selected channels (p. 12, 13, paragraphs 123, 124; p. 21, paragraphs 218-220, 225-227; p. 22, paragraph 237; & p. 26, paragraphs 272, 274); and
- combining, by a channel mixer, the generic data of each channel of the set of selected channels into a stream of data (p. 13, paragraphs 125, 126 & p. 21, paragraphs 221, 228); and
- transmitting the stream of data to a plurality of client devices, wherein the channel of interest is accessible by a client device of the plurality of client devices based upon the specific channel selection request (p. 10, paragraphs 88, 89; p. 13, paragraphs 126, 127; p. 14, paragraphs 139, 140; & p. 18, paragraphs 188-191).

Referring to claim **28**, Rakib et al. discloses a channel mixer for use in a multimedia system, the channel mixer comprises:

- stream parsing module (Fig. 8) operably coupled to receive, from a multimedia source, a set of selected channels as encoded channel data, wherein the stream parsing module generates generic data for each channel of the set of selected channels, and identifies at least one of the channels based on a specific channel selection request and data transcoding module operably coupled to combine, by a channel mixer, the generic data of the at least one channel into a stream of data having a specific data format and for transmission of the data stream to a plurality of client devices, wherein the at least one identified channel is accessible from the data stream by a client device of the plurality of client devices based upon the specific channel selection request (multiple tuners receive multiple channels from a variety of sources according to user selections. The video data is compressed according to a compression format, such as MPEG, and the data is then routed to the requesting user as a set of packets)(p. 12-13, paragraphs 119, 120, 123-127, 130, 131; p. 16-19, 21-23, paragraphs 159, 164-168; 170-179, 182-185, 196, 224, 232, 240, 242; & Fig. 4A).

Referring to claim **29**, Rakib et al. discloses the channel mixer of claim 20, further comprises:

- memory 129 131 135 (Fig. 4A); and
- memory controller 128 133 operably coupled to the memory, the stream parsing module and the data transcoding module, wherein the memory controller controls

reading and writing of data to the memory by the stream parsing module and the data transcoding module (Fig. 4A).

Referring to claim **30**, Rakib et al. discloses the channel mixer of claim 28, wherein the stream parsing module further comprises:

- plurality of bit stream modules 378 380 372 386 388 390 392 394 396 398 400, wherein each of the plurality of bit stream modules filters the encoded channel data to produce a separate channel of interest based on a corresponding channel selection request of a plurality of channel selection requests (Fig. 8); and
- processor 128 operably coupled to the plurality of bit stream modules, wherein the processor generates generic data for each of the separate channels of interest based on type of data for each of the separate channels of interest (p. 24, paragraph 250 & Fig. 8).

Referring to claim **31**, Rakib et al. discloses the channel mixer of claim 30, wherein each of the plurality of bit stream modules further comprises an interpretor (IP Video Process 158) operably coupled to receive a plurality of packets containing the encoded channel data, wherein the interpreter interprets the packets to identify type of data for the channel of interest (p. 13, paragraph 125 & p. 17, paragraphs 166, 167), and wherein the filtering performed by each of the plurality of bit stream modules is dependent on the type of data (p. 13, paragraphs 125, 126).

Referring to claim **32**, Rakib et al. discloses the channel mixer of claim 30 further comprises an input bit bucket operably coupled to the processor and the memory controller, wherein the input bit bucket provides byte to bit conversion of data stored in the memory (p. 24, paragraph 249).

Referring to claim **33**, Rakib et al. discloses the channel mixer of claim 30 further comprises a decoder instruction packet module operably coupled to the memory controller and the transcoding module, wherein the decoder instruction packet module coordinates the pipelining of data through the transcoding module (p. 13, paragraphs 125, 126).

Referring to claim **34**, Rakib et al. discloses the channel mixer of claim 33, wherein the transcoding module further comprises:

- MPEG decoding module 352 operably coupled to the memory controller and to the decoder instruction packet module, wherein the MPEG decoding module decodes MPEG encoded video data (p. 22, paragraph 237); and
- MPEG encoding module 147 operably coupled to the memory controller and to the decoder instruction packet module, wherein the MPEG encoding module encodes generic video data into MPEG video data (Fig. 4A).

Referring to claim **35**, Rakib et al. discloses the channel mixer of claim 30 further comprises a system bus interface (host bus 156)(Fig. 4A & Fig. 8) operably coupled to the processor, wherein the system bus interface provides interfacing to at least one of: system processor and system memory.

NOTE: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claim **36**, Rakib et al. discloses the channel mixer of claim 30 further comprises a digital to analog converter for the stream of data into analog signals (p. 5, paragraph 39).

Referring to claims **37** and **52**, Rakib et al. discloses an apparatus for channel mixing in a multimedia system, the apparatus comprises a processing module and memory operably coupled to the processing module, wherein the memory includes operational instructions that cause the processing module to:

- receive, from a multimedia source, a set of selected channels as encoded channel data (p. 12, paragraphs 119, 122; p. 13, paragraphs 125, 126, 131; p. 17, paragraph 179; p. 20, paragraph 211; p. 21, paragraphs 221, 227; & p. 22, paragraph 233; & Fig. 4A);
- interpret the encoded channel data to identify a data type of a channel of interest of the set of selected channels based on a specific channel selection request, wherein each channel of the set of selected channels has a data type (p. 13, paragraphs 130, 136; p. 14, paragraph 143; p. 16, paragraphs 159, 164-165; & p. 17, paragraph 165, 166);
- process the encoded channel data, which includes data of the channel of interest, based on the data type of each channel to produce generic data for each channel of the set of selected channels (p. 12, 13, paragraphs 123, 124; p. 21, paragraphs 218-220, 225-227; p. 22, paragraph 237; & p. 26, paragraphs 272, 274);
- combine, by a channel mixer, the generic data of each channel of the set of selected channels into a stream of data (p. 13, paragraphs 125, 126 & p. 21, paragraphs 221, 228); and

- transmit the stream of data to a plurality of client devices, wherein the channel of interest is accessible from the stream of data by a client device of the plurality of client devices based upon the specific channel selection request (p. 10, paragraphs 88, 89; p. 13, paragraphs 126, 127; p. 14, paragraphs 139, 140; & p. 18, paragraphs 188-191).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL VAN HANDEL whose telephone number is (571)272-5968. The examiner can normally be reached on 8:00am-5:30pm Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chris Kelley/
Supervisory Patent Examiner, Art Unit 2424

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